THE FIVE-YEAR ECONOMIC AND SOCIAL DEVELOPMENT PROGRAM

FOR FY 1957-1961

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SUPPLEMENT

A Three-Year Production Program — by Senator Jose C. Locsin, Member, National Economic Council

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A THREE-YEAR PRODUCTION PROGRAM

By Jose C. Locsin

CHAPTER I — INTRODUCTION

Under the existing monetary and fiscal policies, coupled with the lack of essential economic information and statistics, it is impractical to propose an over-all program utilizing the investment targets set in the draft Five-Year Program and the past trends of the international payments position highlight the fact that we cannot expect to reach those targets. This situation, together with uncoordinated and unstable implementation of policies under which economic development has to be induced by government, makes me believe that a more specific program, practicable and feasible to undertake both by government and by the private sector, has to be developed. A practicable program is one the components of which answer the basic needs of the greater number of people to whom the benefits and advantages of economic development are addressed, and which will serve to lead towards increasing activity as time goes on and more resources become available. It is one which tackles fundamental economic problems first to achieve the objective of welfare, which, according to our state of social and political development, can only be increased through "material" development. Considering further the limitation of resources — entrepreneurial, capital, and technological — upon which we can evolve a practicable national program of development, the appropriate approach is to indicate and give priority to the fundamental fields of investment that will immediately supply our basic needs and solve our basic problems. Thus, by undertaking projects that within three years can actually contribute to an increase in available goods and services, we shorten the period of sacrifice.

These are the primary considerations in the presentation of this production program.

a. *Nature of the Program* — This proposed production program consists of selected projects which will have to be implemented within a period of three years. The program components are

considered basic, the financing of which will have to be undertaken in the following manner:

1. Basic self-liquidating and income-producing projects to be financed by government.
2. Development projects to be financed by private enterprise.
3. Government participation with private enterprise in the financing of development projects.
4. Extension by government of financial assistance to private enterprise for development projects.
5. Government financing of social overhead programs which directly promote and support economic development by the private sector.

b. *Scope and Purpose* — The program components include financing of projects in agriculture, manufacturing, mining, shipping, and public works. It is understood that the program for the private sector is specifically developmental; that is, directly productive. The program, however, for the public sector will have to include both self-liquidating projects and social overhead types of projects in direct support of economic development by the private sector.

The purpose of this program is to indicate definitely the types of projects that the government should finance and the types of projects intended for financing by private enterprise.

In agriculture, the financial program covers projects on crop production, fisheries, livestock, and forestry; measures for the utilization of agricultural products, by-products and waste products; and measures for increasing the production of export crops.

In manufacturing, the indicated projects are iron and steel, dry-docks, chemical industries, fuel, textile, machine tools, etc. This will have to be supported by basic research in industry which has to be financed greatly by public funds.

In mining, emphasis is on coal production and the development by private enterprise of the Surigao nickeliferous deposits.

A program on shipping is also scheduled in order to offset the acute shortage of bottoms both from the domestic and overseas stand-point.

A national power and irrigation program will have to be undertaken in support of industrial and agricultural development; so with the improvement of existing and the construction of new barrio roads in order to facilitate the marketing of agricultural products and induce improvement or development of a wider transportation network.

c. *Summary of Principles* — The guiding principles which govern the formulation of this program and its components are:

I. *Agricultural Development*

1. To achieve self-sufficiency in the production of man's basic needs for food, clothing and shelter.

2. To utilize extensively agricultural products, by-products and waste products as raw materials for processing and manufacturing.

3. To stimulate an increase in the production of agricultural and mineral exports.

II. *Manufacturing and Mining*

1. To produce more of the essential processed and manufactured goods and raw materials as substitutes for the same or similar imports in order to lessen our dependence on foreign sources.

2. To induce the establishment of basic industries, either by government or by private enterprise or as joint ventures.

3. To encourage diversification of the economy on a much wider front, including the more rapid exploitation of our mineral resources.

4. To develop research programs in industries in support of economic development by the private sector.

5. To seize the opportunity that industrialization offers a more effective tool in creating employment opportunities.

d. *Summary of Program Categories and Estimated Investments* — Given hereunder is a summary of public investment estimates necessary to implement this three-year program.

Program Category	*Financial Requirements (In Millions)*
Agricultural Development	₱343.5[a]
Manufacturing	300.2
Mining	37.8
Shipping	100.0
Airports and Airways	25.0
Barrio Roads	30.0
Power	208.0
Public Health and Social Welfare	37.0
Basic and Vocational Education	18.0
TOTAL	₱1,099.5

[a] Irrigation included.

The details of the program components are explained in the succeeding chapters.

CHAPTER II — AGRICULTURAL DEVELOPMENT

The main objective of the program is to increase agricultural production for the purpose of (1) attaining self-sufficiency in food items; (2) producing enough fiber to meet a good portion of the requirements for clothing; and (3) increasing the volume of exports.

To attain these goals the following measures, among others, must be implemented:

a. *On Crops*

1) Establishment of regional seed farms.
2) Expansion of the plant pest and disease control work of the government.
3) Distribution of fertilizers at subsidy prices.
4) Hastening the implementation of the irrigation program of the Bureau of Public Works such that the goals set for a five-year period will be realized in three years.
5) Direct government investment in ramie textile development to the extent of 50 per cent of the capitalization of each of the five (5) firms proposing to establish processing plants. The total estimated financial requirements of these firms amount to ₱37,500,000. (Considered in the manufacturing program but mentioned here as an incentive to private ramie fiber producers.)
6) Providing a ten-centavo per pound subsidy on cotton production so that the plantings in 1957, 1958, and 1959 will be 11,000; 22,000 and 88,000 hectares, respectively.
7) Full implementation of laws governing the development of the abaca, coconut, tobacco, etc., industries.
8) Expansion of the Bureau of Agricultural Extension.
9) Modernization of rice milling.

b. *On Fishery*

1) Development of deep-sea fishing and fish processing.
2) Fishpond development.

c. *On Livestock Production*

1) Intensification of pest and disease control work.
2) Expanded importation of cattle of the beef and dairy

types for the development of large ranches and of the dairy industry.

d. *On Forestry*
   1) Establishment of a Conservation Corps.
   2) Promulgation of definite policies on "kaingin" farming and on squatting on public lands.

e. *On Utilization of Agricultural Products*[1]
   1) Development of household industries using agricultural products as raw materials.
   2) Increase the processing (canning, bottling, etc.) of agricultural products.

Establishment of Regional Seed Farms

The government, particularly the Bureau of Plant Industry, should establish regional seed farms in addition to those that are already in existence. These should be located where certified seeds suited to the soil and climatic conditions of the regions could be best produced for distribution to farmers. The seed farms should also encourage certified seed production by farmer-cooperators so as to hasten the production of sizeable quantities.

Approximately eighteen (18) seed farms are to be established during a three-year period at an estimated cost of about ₱500,000 per farm, or a total of ₱9,000,000.

Expansion of Plant Pest and Disease Control

The government should expand its plant pest and disease control work, using for this purpose the personnel and facilities of the Bureaus of Plant Industry and of Agricultural Extension. For a three-year period ₱9 million (₱3 million a year) should be used for the purchase of insecticides, fungicides, fumigants, other chemicals, dusters, sprayers and other equipment and for the hiring of additional personnel.

Emphasis on control work should be given to major crops such as rice, corn, coconuts, sugar cane, abaca, tobacco, and vegetables.

Fertilizer Distribution

This calls for the active implementation of Republic Act No. 1609. The sale of fertilizers at subsidy prices should be governed

[1] Included in the manufacturing program.

by a set of guiding principles that would assure the most effective use of the fertilizers for the greatest benefit of the country. The good that would accrue to the economy out of the expenditure of ₱18 million a year for three years will be only as much as the system of distribution and application would allow. About ₱18 million a year for three years will, therefore, be needed.

Irrigation

This three-year program, if fully implemented, is estimated to result in the irrigation of 367,000 hectares, or about 122,500 hectares a year. Gravity irrigation projects, pump units and communal irrigation systems are included in this program which must be implemented by the Bureau of Public Works. The program will require ₱149,000,000.

A yearly appropriation of ₱10 million should be included in the General Appropriation Act to pay for the interest and amortization of bond funds used for irrigation projects.

Cotton Production Subsidy

Philippine imports of textile yarns, fabrics and made-up articles amounted to ₱171.7 million in 1954 and ₱170.6 million in 1955. In yards, the 1954 importation of cotton cloth was 140,464,493, or 74.1 per cent of all textile importation. Raw cotton valued at ₱2.2 million and semi-manufactured cotton valued at ₱14.8 million were also imported in 1954. Local production of cotton cloth, on the other hand, was only about 12 million yards and 8.0 million pounds of yarn in 1955 and about 14 million yards of cloth in 1956.

It is, therefore, necessary to encourage cotton production in the country, for which purpose a ten-centavo per pound subsidy should be provided. The total amount needed will be about ₱4.5 million in three years to cover cotton plantings of 11,000 hectares in 1957; 22,000 hectares in 1958 and 88,000 hectares in 1959.

Full Implementation of Laws Governing the Development of Abaca, Coconut, Tobacco, Sugar, Etc.

The activities of the Abaca Corporation of the Philippines must be given full support by other government agencies, especially with regards to releases of funds for its operations, pest and disease control work and the organization of cooperatives among abaca producers.

Likewise, assistance and cooperation must be given to the Philippine Coconut Administration, Philippine Tobacco Administration, and the Philippine Sugar Institute.

The price support for rice, the onion and garlic program of the ACCFA, and the tobacco purchasing program should be continued. In the case of the Virginia leaf tobacco program, support should be limited to the higher quality grades only. The ACCFA, however, should not be given any additional burden, other than what it has already programmed, and the task of distribution mentioned in this plan.

Expansion of the Bureau of Agricultural Extension

The demonstration and services program of the Bureau of Agricultural Extension should be enlarged with particular emphasis on more extensive poultry and livestock immunization work. Additional personnel, if necessary, should be recruited provided these are well-trained in plant and animal pest and disease control work.

This will require ₱1,865,000 during the first year and about ₱1 million for each of the succeeding two years, or a total of ₱3,865,000 in three years.

Modernization of Rice Milling

In many barrios considerable labor is being wasted in the use of the antiquated pestle and mortar for pounding rice. To make possible the utilization of the farmers' labor on more productive jobs, ₱1,500,000 a year for three years should be made available for the purchase of modern rice mills of sizes suited to the needs of barrios and municipalities to which said mills should be sold.

Deep-Sea Fishing and Fish Processing

The amount of ₱10 million a year for three (3) consecutive years should be made available from the reparation payments of Japan for the development of the deep-sea and offshore fisheries.

This amount is proposed to be used in the acquisition of boats and gear and other fishing equipment including a floating cannery and for operational expenses in exploiting the deep-sea and offshore resources of the Philippines including the adjacent international waters which are practically untapped. The government should

initiate this project for later sale to private parties when these are ready to take over.

Fishpond Development

The amount of ₱2,000,000 should be used to guarantee loans for fishpond development extended to fishpond operators by banks and other financing institutions. The RFC, under its fishpond financing program, grants loans to fishpond operators at the rate of ₱800 a hectare but not exceeding 25 hectares. This loan per hectare is believed insufficient and should be increased to at least ₱1,200 per hectare.

Complementary to the development of fishponds, more fish breeding stations should be established and maintained. Oyster farming should also be expanded. For these purposes ₱1 million should be made available.

Intensification of Animal Pest and Disease Control Work

The control and eradication of animal pests and diseases has been a yearly activity of the Bureau of Animal Industry but for lack of funds and personnel to carry on the work systematically and methodically, the livestock population of the country is still unduly exposed to ravages of pests and diseases. When rinderpest was still rampant, and when it was killing carabaos and cattle at a very fast rate, a systematic campaign against the disease was undertaken. It did not take long for the country to be rid of this malady. This was made possible by making available to the Bureau of Animal Industry the necessary appropriation it needed for actual field work — the mass immunization against the disease of all susceptible animals throughout the country.

The Bureau of Animal Industry is presently undertaking a program of tests and immunization of animals aimed at eradicating pests and diseases but it can not, for lack of funds, do the work on a country-wide scale. Funds, therefore, should be made available for (1) intensive research on parasitic, bacterial and virus diseases; (2) testing animals against brucellosis, tuberculosis, etc. and mass immunization against prevailing diseases — hemorrhagic septicemia, anthrax, hog cholera, swine plague, avian pest, etc., to be undertaken thoughout the country; and (3) the purchase and/or manufacture of biologics for immunization work, etc. The amount of ₱600,000

for a three-year period for this project is needed. Actual field disease control work is to be done cooperatively by the Bureau of Animal Industry and the Bureau of Agricultural Extension.

Importation of Beef and Diary Cattle for Large Ranches

Very few of the pre-war ranches have so far been rehabilitated. On the other hand several new ranches have been opened. But for the dearth of good foundation stock, more ranches could have been established. Local stock may be available to start a cattle ranch but it will take years to produce quality animals.

In the case of dairy farming, it is regretted that no satisfactory dairy animals can be had in quantity locally. While the Bureau of Animal Industry imported purebred animals during the past years, the stock available for sale is hardly sufficient to meet the demand. It is, therefore, necessary that more improved animals, particularly of the dairy type, should be imported for the establishment of government dairy farms in strategic places of the country. These dairy farms should be sold to private parties when they are willing to take over. About ₱5 million for the first year, ₱3 million for the second year and ₱2 million for the third year, or a total of ₱10 million for three years will be needed for this program, to be divided as follows:

1st Year	₱5,000,000
Beef cattle	3,000,000
Dairy cattle	2,000,000
2nd Year	₱3,000,000
Beef cattle	2,000,000
Dairy cattle	1,000,000
3rd Year	₱2,000,000
Beef cattle	1,000,000
Dairy cattle	1,000,000

The above figures may be doubled if adequate quantities of stock are available for purchase abroad. The Bureau of Animal Industry, however, should provide adequate quarantine and other precautionary facilities to insure safety of the stock.

This project is aimed at developing self-sufficiency in meat and dairy products.

Establishment of a Conservation Corps

A Conservation Corps patterned after the Civilian Conservation Corps (CCC) of the United States during the thirties should be established and for which P12 million a year for three years should be provided. The objectives are to: (a) create job opportunities for the youth; (b) afford vocational training to the enrollees; and (c) undertake urgently needed reforestation and soil conservation work.

Unmarried, unemployed young men from 18 to 20 years old who have completed at least an elementary education should be recruited and employed for at least six months but not exceeding two years in reforestation and soil conservation projects. Enrollees are to be provided subsistence, quarters, clothing, medical attention, transportation and a monthly base pay. The Corps is proposed to be managed by a Project Director, assisted by a full-time staff drawn from the Bureau of Forestry, Bureau of Soil Conservation, the Department of Education and the Armed Forces of the Philippines. The specific projects to be undertaken by the corps should be so located and planned as to bring about control of soil erosion and floods and improvement and development of land use. Such projects are to be generally undertaken on lands of the public domain.

Definite Policies on "Kaingin" Farming and Squatting on Public Lands

There is a general attitude of indifference to squatting on forest lands and vacillating enforcement of forest protection laws resulting in rampant "kaingin" making and squatting on forest areas. To control this, it is necessary that:

(a) the permanent forests be established at once and their boundary lines clearly marked;

(b) classification and release of agricultural lands be expedited to accommodate settlers and the landless;

(c) "kaingineros," forest squatters and prospective settlers should be accommodated in the agricultural lands. Squatters should be given a chance to replant areas actually occupied by them with permanent tree crops under tree farm

leases with a condition that they will not enlarge their clearings thereafter;

(d) the "kaingin" laws should be strictly enforced, making it unlawful to enter upon, clear or occupy any public forest, timberland, communal forest and forest reserve without written permission from the Bureau of Forestry, or to cause any damage to the timber and other forest growth.

PRODUCTION FOR DOMESTIC CONSUMPTION AND THE PATTERN OF COMMODITY DISTRIBUTION

In 1954, the Philippines produced 8,703,300 metric tons of agricultural commodities and in 1955 8,882,800 metric tons. Notwithstanding this production, the Philippines imported in 1954, 331,882 metric tons of agricultural products and preparations therefrom. In 1955, the importation increased to 502,213 metric tons (See Table I).

From Table I, it may be seen that rice, corn (starch and canned), tapioca and cassava starch, fruits (fresh, canned, dried, including fruit juices, soups, sauces, etc.), vegetables (dried and fresh), onions, Irish potatoes, beans and peas, coffee, cacao, peanuts, candies and other sugar preparations, cigarettes and tobacco, cotton, jute, rubber, meat and dairy products, and fish and fish products have been imported in sizeable quantities. Domestic production should be promoted to supplant importation of commodities that can be produced locally.

Speeded up Food Production

The intensification of production efforts of such annual crops as rice, corn, root crops, vegetables, onions, beans and peanuts can, within a short time, provide quantities of foodstuffs sufficient to reduce the importation of food items. The intensification of production can be made possible by more direct participation of the government in such activities as pest and disease control, distribution of fertilizers at subsidy prices, expeditious construction of irrigation systems, extensive distribution and use of high-yielding seeds and other planting materials, construction of warehousing and storage facilities, expansion and liberalization of agricultural credit, construction of farm-to-market roads and a faster rate of organization of farmers' cooperatives. The price support program for rice and corn if expanded to include other food crops, even on a

temporary basis, will boost production. Food production campaigns such as those undertaken in the past can add to the supply of fresh vegetables and root crops.

In animal production, measures which produce results within a short period such as: extensive backyard raising for milk of carabaos, cattle and goats; systematic and methodical control on the national scale of poultry and livestock diseases by the government; expansion, also by the government, of hatcheries which should sell chicks at subsidy rates; putting up by private parties of backyard poultry and swine projects. In addition, measures whose effects will be felt after a longer time should also be initiated. These should include: importation of breeding animals in large numbers for the livestock dispersal program and government farms; enforcement of the law banning slaughter of female animals; intensification of artificial insemination work; rehabilitation of government stock farms and breeding stations; encouragement of the growth of poultry and dairy cooperatives; and expansion of credit for animal production ventures.

Fish production can be expanded by implementing the following projects:

a) Expanded production of fresh and processed (salted, dried canned, etc.) fish from the continental shelf and swamplands by (1) the expansion of fleets of private fishing boats and by exploiting the fishery resources not as yet touched; (2) development of fishponds on the extensive and intensive basis through private financing and assistance from government lending institutions; and (3) increasing the productivity of the depleted fishery resources of coastal and inland waters through proper management and conservation.

(b) Expanded deep-sea fishing for tuna and other pelagic (surface) species such as sardines, mackerel, marlin etc., through (1) active government participation in private ventures whereby, say, the National Development Company purchases boats and gear, hires the necessary Japanese or other foreign fishing technicians assisted by Filipino fishermen engaged actively in fishing; and (2) allowing local fishing companies to enter into joint ventures with Japanese or other expert foreign fishing firms to exploit the offshore and sea resources of the Philippines under terms beneficial to the country.

c) Establishment of fish refrigeration units.

d) Expansion of oyster farms.

Expanded fish production may result in the development of the fish canning industry, thereby making fish and fish products available to consumers even during lean-fishing months.

e) Rigid enforcement of fishing laws, rules and regulations.

Act 4003, otherwise known as the "Fisheries Act," and the Fisheries Administrative Orders promulgated by the Secretary of Agriculture and Natural Resources in accordance with said Act, embody the laws, rules, and regulations governing the exploitation and development of the fishery resources. These have to be enforced rigidly in order to ensure sustained maximum fish production. Particular attention should be given to the rigid enforcement of the prohibition against the use of explosives and obnoxious or poisonous substances in fishing, protection of fry or fish eggs, and regulations establishing closed seasons for fishing, closed areas, limitations in the use of certain types of fishing gear, and minimum size limits of fish to be caught.

Production of Food Substitutes

Cassava flour.—Should there be reduction in wheat flour importation, cassava flour consumption will increase. Existing mills can easily expand their production and new mills can be established just as soon as a sound market for the product is in existence. Cassava flour can be used extensively in cookies production.

Coconut flour.—The new process of extracting oil with the use of the Hiller machine results in the production of coconut flour fit for human consumption. However, as in the case of cassava flour, a campaign must be waged to develop consumers' liking for bread made out of a mixture of this product and wheat flour. The nutritive value of coconut flour as analyzed by the Institute of Nutrition compares favorably with those of wheat and rice flour.

Rice flour.—This can easily be produced for more expanded production of native preparations such as "puto'," "bibingka," "suman," etc. Importation of rice and rice preparations should be banned.

Corn starch.—Local production can be expanded in the absence of competition from foreign-made starch. An added advantage arising out of more extensive corn starch production is the produc-

tion of corn gluten, an excellent animal feed. Importation of this product should be banned.

Wheat.—Research on the acclimatization of wheat may result in the production of quantities sufficient to meet local requirements.

Tapioca.—This product is being imported even if it can easily be produced in the Philippines from cassava flour. Another local product that can replace tapioca is a cassava preparation termed in Tagalog "gaplek." To increase local production, importation of cassava preparations and other similar items should be banned.

Rimas flour.—This is a flour from a breadfruit. The College of Agriculture has demonstrated the qualities of cookies prepared from this product. It has also been found to mix well with wheat flour for the baking of bread. The supply of the product, however, is limited.

Vinegar.—Vinegar production from coconut and nipa sap and from sugarcane juice can be expanded to replace any amount of imported vinegar. Bottling of this product may be done extensively.

Confectioneries.—In the absence of imported candies, local production of substitutes will automatically increase. The industry can be an outlet for sugar, corn, peanut, cacao, coconut and pili, cashew, and other nuts.

Peanut oil and peanut butter.—Importation of these commodities may now be entirely cut. Local production can easily replace the quantities being imported.

Soy and other vegetable sauces.—Our soybean production has not expanded as it should presumably because of the continued importation of soybean itself, soy extracts, and other soybean preparations. With the limitation or complete absence of imported soybeans and soybean preparations, local soybean production can easily be expanded to produce all the necessary quantities required for soy and other soybean products manufacture. Local production of catsup, chili sauce, and other fruit and vegetable preparations, in the presence of a stable market, will invariably rise. Soybean milk production should be studied more thoroughly to improve quality and to possibly increase the bulk of production.

Patis and bagoong.—The consumption of these products will increase if the competing meat and fish sauces now being imported are removed from the market. It is believed that producers of these

commodities can easily increase their output, especially with the proposed expansion of the fishing industry.

Oleo-margarine.—The output of local manufacturers of this commodity has been limited to the quantity sufficient to meet the presently modest local demand. With butter and foreign-made butter substitutes absent or available in very limited quantities, oleo-margarine production can be expected to increase.

Other Agricultural Substitute Products

Tobacco.—Leaf tobacco importation can ultimately be supplanted by local production with the continuation of the price support program for Virginia leaf tobacco. The Virginia leaf tobacco production in 1956, if not that it required aging, already exceeded the cigarette manufacture requirement for the year.

Lumbang and castor oil.—Large scale planting of lumbang and castor bean can easily result in the production of more drying oil for paint manufacture and for medicinal and other purposes.

Cotton.—Importation of cotton must have to go on if we must assure the continued operation of our established spinning mills, until we have developed local cotton growing sufficiently. The expected production of the cotton project in Mindanao, if successful, will reduce cotton importation. Local production of cotton should easly result in the local manufacture of cotton seed oil which can substitute for similar imported oil.

Ramie.—Favorable soil and climatic conditions exist for this crop. Production will increase just as soon as the textile mills to process the fibers are established.

Jute and other fibers.—Agronomic research on these fiber crops should be expanded as these are sources of substitutes for a variety of imported commodities.

Recommended System of Distribution

The ACCFA may be given the task of administering the overall distribution of foodstuffs with the NAMARCO, SWA, and the Bureau of Agricultural Extension cooperating. The farmers' cooperative associations of the ACCFA which are scattered all over the country can be potent agencies in the distribution of foodstuffs. Distribution to indigents can easily be handled by field officials of the SWA. The Bureau of Agricultural Exension, which has offices

in every provincial capital and which has agriculturists stationed in municipalities, can also assist in the distribution.

If distribution is to be on a nation-wide scale, it appears necessary to organize a procurement agency that should be financed by the government. Unless products are bought and handled in bulk, distribution costs may become so prohibitive as to negate the objective of making substitute products and other foodstuffs available to consumers without unnecessarily burdening them with high prices. Such agency may also be the ACCFA.

The ACCFA should designate its provincial directors as purchasing and distributing agents who should utilize FACOMA warehouses for storage purposes. FACOMAS should serve as distributors in their districts. The personnel of the NAMARCO, SWA, and the Bureau of Agricultural Extension should merely act as agents in areas designated by ACCFA, with the NAMARCO using its regular distributors who should supply the retailers assigned to them. The Bureau of Agricultural Extension agents should supply qualified retailers not affiliated with the NAMARCO.

In such a setup, consumers in areas where there are FACOMAS will be served by these associations; in areas where FACOMAS are not in existence but where there are NAMARCO distributors, the consumers will be able to obtain commodities from NAMARCO retailers; in communities where only agricultural extension agents are handling distribution, consumers will be served by designated retailers; and indigents will receive service directly from SWA field personnel.

The above proposed organization is in addition to the normal marketing activities performed by private traders.

Table I
PRODUCTION AND IMPORTATION OF AGRICULTURAL PRODUCTS
1954 and 1955
(In Metric Tons)

Products	1954		1955	
	Production	Importation	Production	Importation
Farm Crops:	8,703,300	331,882	8,882,800	502,213
Rice (palay)	3,182,400	65,580[a]	3,202,900	162,080[a]
Corn	780,900	2,569[b]	770,100	230
Fruits and nuts	600,200	13,190	625,600	12,605
Root crops	1,180,000	394[c]	1,200,000	179[c]
Vegetables exportation onions and potatoes	161,000	6,471[d]	164,200	6,034[d]
Onions	9,100	3,277	12,500	2,784
Irish potatoes	7,200	611	6,700	679
Beans and peas	39,000	5,188	40,000	8,514
Coffee	6,100	1,650	7,000	2,398
Cacao	1,400	646	1,500	2,129
Peanuts	17,500	3	17,600	25
All other food crops	4,500	201,016[e]	4,700	258,889[e]
Copra	942,000	—	1,101,900	48
Sugar	1,352,000	4,530[f]	1,304,400	5,640[f]
Tobacco	27,500	7,478	30,000	11,741
Cotton	—	5,906	—	7,142
Jute and other fibers	—	4,731	—	3,474
Rubber, crude	1,000	78	1,200	8
All others	391,500[g]	8,564[h]	391,500[g]	17,614[h]
Meat and meat products	180,000	11,332	200,900	13,841
Milk and dairy products	5,800	71,497	6,000	88,338
Fish and fish products	343,625	26,345	362,927	50,286

[a] Converted into palay equivalent.

[b] Includes corn starch and canned corn.

[c] Tapioca or cassava starch.

[d] Includes fresh, canned, dried vegetables and vegetable preparations like tomato juice, pickles, soups, sauces, vinegar and yeast.

[e] Includes other grains and preparations, vegetable fats and oils, tea and spices.

[f] Includes glucose, molasses, syrups, refined sugar, candies, confectionery, ice cream mix, chewing gums, and honey.

[g] Includes desiccated coconut, abaca, ramie, maguey, kapok, cotton and molasses.

[h] Includes fodder and feeds; gums, resins, oils and vegetable waxes; seeds and nursery stock.

MEASURES FOR INCREASING EXPORTS

Crop Products

For Coconut (Copra), Coconut Oil and Desiccated Coconut

1. *Increasing exports:*
   a. Lowering of the cost of production by:
      1) Expansion by the government of the pest and disease control work and intensification of the researches along this line with emphasis on "Kadang-kadang" disease;
      2) Use of better plantation management techniques, including cover-cropping, fertilization and intermittent plowing of plantations;
      3) More extensive use of modern copra driers and centrals;
      4) More extensive use of the Hiller Machine if its operation during the last few months definitely established its worthiness;
      5) Improving roads from production areas to shipping points; and
      6) Modernizing handling facilities to allow movement in bulk.
   b. Replacement of old trees and expansion of the coconut area.
   c. Provision by government lending institutions including the PHILCOA of adequate credit to coconut planters.
   d. Negotiating trade agreements with other countries to widen our copra, coconut oil, and desiccated coconut market. Triangular barter arrangements may be resorted to.
2. *Increasing utilization of wastes and by-products*
   a. Commercial production of wallboards from coconut coir;
   b. Expansion of vinegar production from coconut milk and sap;
   c. Expansion of confectionery plants using coconut products;
   d. Expansion of home industries producing decorative materials such as handbags, etc., from coconut shells, midribs and "guinit";
   e. Expanded use of coconut flour that may be produced by the Hiller Machines; and
   f. Expanded processing and distribution of copra meal for animal feeds.

For Abaca

1. *Increasing exports:*
   a. Lowering of the cost of production by:
      1) Expansion of the abaca mosaic control work and other disease control work by the government and private planters;
      2) Use of disease-free planting materials;
      3) Application of improved methods of culture;
      4) Modernization of the methods of stripping by replacing the antiquated stripping knives with modern strippers and decorticating centrals.
   b. Provision of adequate credit to abaca planters by the PNB, RFC, Rural Banks and the ABACORP.
   c. Expansion of abaca plantations.
   d. Negotiating trade agreements with other countries.
2. *Increasing utilization of wastes and by-products:*
   a. Development of the use of stripping wastes for the manufacture of paper.
   b. Expansion of home industries producing decorative baskets, mats, handbags, etc., from abaca fiber.

For Rope and Twine

1. *Increasing exports:*
   a. Expansion of existing cordage plants and establishment of new ones to increase the rope and twine output of the country.
   b. Negotiating trade agreements with other countries.

For Pineapple

1. *Increasing exports:*
   a. Expansion of pineapple planting for local consumption.
   b. Extensive use of modern plantation management techniques.
   c. Expansion of the pest and disease control work both by the government and private parties.
2. *Increasing utilization of wastes and by-products:*
   a) Conversion of wastes from the manufacture of canned pineapple into fertilizers and animal feeds.
   b. Development of small canning factories to increase the supply for domestic consumption.

c. Research on the utilization of fiber for manufacture into clothing materials, etc.

For Sugar

1. *Increasing exports:*
   a. Reducing cost of production by:
      1) Expansion of pest and disease control work by the government and private planters;
      2) Extensive use of fertilizers and modern methods of culture;
      3) Improvement of handling facilities from sugar centrals to points of shipment. Bulk handling should be resorted to;
      4) Planting of high-yielding and disease-free varieties; and
      5) Improvement of the efficiency of milling facilities.
2. *Increasing utilization of wastes and by-products:*
   a. Expansion of confectionery industries;
   b. More extensive use of bagasse for production of paper pulp through the establishment of three (3) units of a paper pulp factory with an annual capacity of 20,000 tons each, or a total of 60,000 tons a year;
   c. Research on, and expansion of, the production of wallboard from bagasse;
   d. Improvement of the handling and distribution of molasses such that it could be used more extensively for animal feeds all over the country;
   e. Use of alcohol-gasoline mixture for motor vehicle fuel must be encouraged;
   f. Expansion of the production of vinegar from sugarcane juice;
   g. Improvement of the local marketing system of sugar.
   h. Production and canning of sugar cane juice as a drink; and
   i. Improvement of rum for export.

For Tobacco

1. *Increasing exports:*
   a. Lowering of costs of production by:
      1) Extensive pest and disease control work;
      2) Mechanization of tobacco farms;

3) More extensive use of flue-curing barns and redrying plants; and

4) Planting of high-yielding varieties and putting emphasis on the production of high-quality tobacco.

b. Negotiating trade agreements with other countries to include, if necessary, barter arrangements.

c. Mechanization of the cigar industry.

d. Undertaking cigar trade promotion with the U S. and other countries. Low-cost Cuban and Puerto Rican cigars have taken away the prewar U.S. market for Philippine cigars.

2. *Increasing utilization of wastes and by-products:*

a. Use of tobacco scrap for the manufacture of insecticides and other preparations.

For Ramie

1. *Increasing exports:*

a. Expansion of the decorticating and degumming facilities.

b. Establishment of integrated ramie textile mills.

c. Expansion of ramie plantings.

d. Lowering the costs of production by:

1) Planting high-yielding varieties; and

2) Using improved cultural techniques and proper pest and disease control measures.

e. Expansion of agronomic and fiber research to increase the yield per hectare and to develop more efficient methods of processing aimed at improving the quality of the finished ramie cloth.

f. Continuation of the processing arrangements with Japan until such time when integrated ramie textile mills shall have been established and in operation.

For other Fibers

Research including acclimatization on jute and other fibers may result in the production not only for local consumption but also for export.

For Rubber

While the Philippines has been exporting natural rubber during the past years, such exportation may be discontinued as a result of the establishment in the country of new rubber companies the requirements of which, for the present, exceed local production. When

local requirements shall have been satisfied, however, exportation may be resumed through further expansion of acreage for rubber and by planting high-yielding clones. Modernization of the curing and drying techniques will also help in the development of an export trade. Caution must, however, be exercised as synthetic rubber production, specially in the United States, remains a formidable competitor against natural rubber.

For Peanuts

1. *Increasing exports:*
   a. Expansion of acreage for peanuts.
   b. Use of modern cultural techniques including such measures as pest and disease control, fertilization, inter-cropping, and crop rotation.
   c. Planting of high-yielding, good quality varieties.
   d. Negotiating trade agreements with other countries which may include barter arrangements.
2. *Increasing utilization of peanuts:*
   a. Expansion of the salted peanut industry, including canning.
   b. Expansion of the confectionery industry using peanuts.
   c. Establishment of more peanut butter and peanut oil manufacturing plants.
   d. Research on the utilization of peanuts in the manufacture of plastic and other commercial preparations.

Other Fruits

1. *Increasing exports:*
   a. Negotiating with the Japanese and U.S. governments so that Philippine fruits can enter those countries under their plant quarantine rules and regulations.
   b. Banning of the importation of fruits.
   c. Reducing cost of production by application of modern cultural techniques.
   d. Expanding the planting of fruit trees and intensifying pest and disease control work.
   e. Use of better grading, processing and packing methods.
   f. Expansion of credit for orcharding.

Forest Products

A. *Measures for development of export products:*

1. *Lumber, plywood and veneer, etc.*

1) Granting of liberal credit facilities, especially from government financing institutions, for the expansion of existing wood processing plants or the establishment of new ones;

2) Granting of needed foreign exchange for the purchase of machinery, equipment and accessories for wood processing plants;

3) Reduce through a Forestry Administrative Order the inspection fee on lumber from ₱3.00 to ₱2.00 per 1000 bd. ft., and increase that on logs from ₱1.00 to ₱5.00;

4) Improve and standardize the quality of our export products by more rigid enforcement of grading rules, use of better equipment and improving of labor skills;

5) The Forest Products Laboratory should be made to pursue an aggressive research program to develop improved manufacturing techniques;

6) Gradually restrict log exportation to Japan so as to lessen the competition being met by our lumber and plywood abroad from Japanese products manufactured from Philippine woods;

7) Build up a fleet of cargo vessels for shipping Philippine export products;

8) Create and finance a Forest Products Promotion Corporation to promote the effective merchandizing of lumber, plywood, etc., especially abroad.

9) Rigid enforcement of logging and utilization rules. The following existing regulations should be strictly enforced:

(a) In permanent forests, a selective logging system approved by the Director of Forestry shall be followed on concessions having an area each of 10,000 hectares or more;

(b) The acceptance of compensation or royalty by a licensee from another party for cutting timber or gathering of forest products in his area shall be penalized by cancellation of the license;

(c) To prevent undue damage to forests, the use of tractors or engines of more than 150 horse-power for logging is prohibited;

(d) All merchantable standing trees unnecessarily injured within permanent forest lands shall be paid for at regular forest charges and those which are below the diameter limit shall be paid for at double the forest charges;

(e) Tapping of almaciga trees for resin shall not reach the cambium layer nor be more than 40 cms. wide, and shall at least be 60 cms. apart horizontally;

(f) Minimum diameter limit for bacauan, tangal, langarai, pototan, and pagatpat is 10 centimeters;

(g) Cutting down or unnecessarily damaging trees in collecting resins, gutta-percha, gums, wood oils or similar forest products would be sufficient cause for cancelling a license and trees so damaged shall be paid for at four times the regular rate.

2. *Resins, gums, rattan and other secondary products*

1) The Bureau of Forestry should start an inventory of the various secondary forest products, especially of rattan and almaciga, to determine the available quantities of each and the safe amounts that can be exported after meeting local requirements;

2) The Forest Products Laboratory should undertake a research program aimed at improving the method of collecting and extracting almaciga, elemi, gutta-percha, oils, etc., work out the proper seasoning schedule for rattan poles and develop preservative treatments to prevent sapstain and borer infestation;

3) The Bureau of Commerce should undertake a more rigid inspection of export products for the purpose of improving and maintaining the quality of our exports;

4) The Bureau of Forestry should supervise more adequately the operations of licensees and collectors of minor forest products to prevent undue destruction and wastes.

B. *Measures for increasing utilization of wood wastes and by-products*:

1. Granting tax exemption, liberal credit facilities, including preferential consideration in foreign exchange allocations,

to industries that will: (a) use for raw materials tree species and other products of the forests not at all or not fully utilized at present, such as those that could be used in manufacture of pencils, matches, containers, athletic equipment, cooperage, agricultural implements, pulp and paper, etc.; (b) bring about the conversion of sawdust, slabs and other sawmill and logging wastes into insulation and hardboard, metallurgical charcoal, plastics, pulp and paper, etc.; (c) put up accessories to logging and sawmilling operations like planing mills, flooring machines, drying kilns, wood preserving and fireproofing plants, etc.;

2. The Forest Products Laboratory should assist wood processors in solving their technical problems, study the improved utilization of fibrous plants, bamboo, barks, dye and tanning plants, etc.

Fisheries

A. *Measures for increasing exports*:

1. *Raw shell and shell products*

a. Organization of the shell gatherers into cooperative associations and giving price support on the shells produced.

b. Introduction of better methods of gathering shells with the use of diving equipment.

c. Granting liberal credit to shell divers to acquire the facilities for shell diving.

d. Have our foreign offices abroad explore the world market for better prices for Philippine shells and shell products.

2. *Exports of other minor sea products — sponges, sea snake skin, turtle shells and eggs, etc.*

a. Organizing the producers into cooperative associations and giving price support for the products.

b. Granting liberal credits to producers.

c. Introduction of better methods of processing the products to improve quality.

d. Have our foreign offices abroad explore markets for better prices for those products.

3. *Fish exports*

(1) Development of export trade for tuna

a. Exploitation of the offshore tuna fisheries by attracting private capital through proper incentives.

b. Exploring world markets where the fish may be exported.

(2) Exports of other fish and fishery products—*bañgus* and other fishery products demanded by overseas Filipinos should be prepared in the form liked best by our nationals, such as smoked or canned, using Philippine recipes.

4. *Expansion and Improvement of Fishing Facilities*

More liberal dollar allocations and credit for the purchase of fishing boats and gear should be allowed those who are already in the business and those who desire to go into fishing ventures.

Agricultural Extension

Returns on investment in the production of crops such as coffee, cacao, rubber and other desirable crops which are more or less on the experimental stage should be exempted from taxation. This will place the investors in a better position to stand competition from imported products and from already well-established ventures.

SUMMARY OF THE FINANCIAL REQUIREMENTS

Project or Measure	Amount in Thousand Pesos
Establishment of regional seed farms	9,000.0
Expansion of Plant Pest and Disease Control	9,000.0
Fertilizer Distribution	54,000.0
Irrigation	179,000.0
Cotton Production Subsidy	4,500.0
Expansion of the Bureau of Agricultural Extension	3,865.0
Modernization of Rice Milling	4,500.0
Deep-sea fishing and fish processing	30,000.0
Fishpond development	3,000.0
Animal Pest and Disease Control	600.0
Importation of beef and dairy cattle	10,000.0
Establishment of a Conservation Corps	36,000.0
Total	343,465.0

CHAPTER III — MANUFACTURING PROGRAM

Objectives and Measures. This is a proposed three-year production program in manufacturing which includes specific projects designed for establishment under government sponsorship and private initiative.

The program aims to (1) produce more of the essential manufactured commodities and raw materials which are now largely or wholly supplied from abroad to lessen our dependence on foreign sources; (2) induce the establishment of basic industries, either by the government or by private capital or as joint ventures; (3) encourage diversification of the economy on a much wider front, including the more rapid exploitation of local products, by-products and waste products as research developments bring to light their economic value and uses; (4) consider industrialization as a more effective tool in inducing a faster rate of creating employment opportunities. It is expected to accomplish the laying of the foundation for the industrial development of the country by accelerating the establishment of basic industries upon which other industries would depend for their development.

In the selection of the projects, emphasis was laid on industries which will produce essential commodities that are being imported in considerable quantities, especially those industries which will most fully utilize domestic raw materials. Those whose production is not possible under present local conditions or under our present stage of industrial development are not considered. The final consideration in the selection of the desirable manufacturing projects depends on the local demand for the product, market possibilities, and the profitability of the operation.

The accompanying tables show the manufacturing projects. In view of their importance to the national economy, six areas of development are stressed; namely: (1) shipbuilding (treatment included in Chapter V), (2) iron ore smelting, which will include the fullest possible utilization of the Surigao lateritic deposits, (3) expansion of cement production, (4) improvement and expansion of industrial research, (5) pulp and paper production, and (6) the promotion of home industries.

The ship-building project, designed preferably for private development, involves an investment of ₱100 million, ₱40 million of

which is to be invested in the first year and ₱30 million each in the second and third years. In order to attract capital to this field, it is proposed that the government subsidize the construction of the drydock and other facilities required in shipbuilding by investing ₱10 million for the purpose.

The establishment of a smelting plant, with an estimated investment of ₱60 million, is recommended to provide facilities for the conversion of the lateritic iron ore deposits in Surigao into ferronickel pig. Private investors, particularly those engaged in mining, should be encouraged to undertake this project with the government sharing at most 50 per cent of the capital with the management to be left in competent private hands.

The government should finance the establishment of ammonium nitrate fertilizer plants and the production of insecticides which will call for an appropriation of ₱16 million and ₱1 million, respectively.

In view of the recurrent shortage of cement and ceramic construction materials, expansion of these industries is imperative. This program recommends the investment of ₱40 million by the private sector in the establishment of additional cement plants with an estimated aggregate capacity of 8 million bags. To meet the domestic demand for ceramic products, especially construction bricks, sanitary ware, and tiles including roofing materials, an investment of ₱14 million is expected to be covered by private capital fully or with government participation. This will promote the increased local production of glazed tiles and other ceramic articles.

Under the program, it is proposed to establish one flexible paper plant of 21,000 ton capacity annually, which will involve an estimated ₱14 million capital investment within the three years, for the manufacture of newsprint, tissue, and writing paper with sugar cane bagasse as principal raw material. Financing is proposed for the government to undertake.

The manufacture of tin plates and cans which requires large financial outlays should be undertaken by the government first, subject to sale to private enterprises when successful operation develops. It is to be noted that in the financing of self-liquidating projects by the government, either in full or as part of joint ventures, that the government intends only to pioneer and sell such ventures when their operation becomes profitable and attractive to private enterprise.

One important prospect of relieving unemployment in the country could very well be in the promotion of home industries in which the potential labor resources of the rural areas could be fully utilized for production. This will not be the first attempt to develop home industries as an instrument to raise the productive output and real income of the rural population. Previous efforts met with little success owing to, among other reasons, an uncoordinated technical approach as well as the spasmodic nature of the past attempts. Cognizant of the ineffectiveness of previous home industries development plans, this program requiring an outlay of ₱2 million proposes a new approach, initially involving extensive and comprehensive promotional work directed towards the building up of a more solid and permanent foundation for home industries.

The importance of research in industry can not be over-emphasized. It has been reported (Encyclopedia Britannica) that 90 per cent of the income derived from manufacturing accrues from the discoveries of scientific investigations. Research in industry is expected to (1) improve existing products, (2) develop new ones, (3) improve manufacturing procedures, (4) effect better utilization of waste materials, (5) find new uses of existing products, (6) bring about better standardization, and (7) reduce costs of production. A fund amounting to ₱13.1 million has been provided in R.A. No. 1606, for the improvement and expansion of industrial research in the Philippines. Some of the projects included in the industrial research program are metallurgy, pulp and paper, foods, textile, ceramics and coconut by-products.

In order to accelerate the work along this line, an outlay of ₱6.1 million is provided for the first year, ₱4.4 million in the second year, ₱4.3 million in the third year. The larger amount required in the first year will cover the expansion of laboratory buildings, the construction of new ones and the purchase of machinery and equipment, including establishment of pilot plants.

The Role of Private Enterprise in the Program

For achieving the objectives of this program, a fundamental premise is that the establishment and operation of industrial projects will primarily be undertaken by private enterprise. The government will undertake a limited number of industries confined mostly to those types which, although considered desirable, do not hold much ready attraction to private enterprise and those which are important to the defense of the country.

As will be noted, Table 2 indicates the projects designed for development by the private sector, especially projects in which private interest in their establishment has been manifested. Others have been selected and studied by government technicians as essential and feasible projects which, because of their nature and the existing policy of the government, are considered within the scope of and should be undertaken by private enterprise. Because of the importance of these projects to the national economy, the government should be ready to assist prospective investors either through the extension of loans or through government participation in putting up the necessary investment.

Production Goals of the Manufacturing Sector. The proposed industrial production program involves the production of substitutes for imported goods through the establishment of new plants and the expansion of existing ones. Specific production goals are shown in Table 2. These goals embrace 45 projects including the expansion of existing industries grouped under 12 categories.

A. *Iron and Steel and Drydock*

1. Dock and Shipbuilding.—(This project has already been considered above).

2. Surigao ferro-nickel pig from Surigao iron ore.—(also treated above.)

3. Ferro-alloy Production.—Another industry which is highly essential in the development of the iron and steel industry is ferro-alloys manufacturing to supply alloying agents for the steel industry. This project involves the establishment of a ferro-alloy manufacturing plant to process 24,000 metric tons of chromite ore (45% Cr_2O_3) into 8,000 metric tons ferro-chrome; 60,000 metric tons manganese (40% Mn) into 25,000 metric tons ferro-manganese; and 17,000 metric tons quartz (98% SiO_2) into 17,000 metric tons ferro-silicon.

4. Galvanized Iron Plant.—In view of the large local demand for galvanized iron, it is considered highly important to establish a plant for producing galvanized iron in addition to a recently established private galvanizing plant. Unlike the existing mill, which utilizes imported materials, the proposed plant is expected to use locally manufactured black iron sheets as its raw materials.

B. *Chemicals*

1. Caustic Soda—Soda Ash Plant.—This is a combined soda ash-caustic soda plant project. Using the ammonia-soda or "Sol-

vay" process, part of the soda ash produced will be converted into caustic soda by the caustization process. The plant is designed to operate on a three-shift schedule to produce 29,400 metric tons of soda ash and 14,700 metric tons of caustic soda annually. The San Miguel Brewery, Inc., made a detailed study of this project and hopes to establish it as a part of their industrial undertaking to supply the soda ash requirements of their glass factory and part of the needs of other industries.

Soda ash is one of the basic and most important chemicals in industry today. It is used commercially in the manufacture of glass, soap, bicarbonate of soda, textiles, pulp and paper, petroleum refining, cleansers, modified sodas, water softener, etc.

2. Superphosphate Fertilizer Plant.—This proposed plant will initially have a yearly output of 50,000 metric tons of superphosphate (18-20 per cent $P_2 0_5$).

Studies made on Philippine soils show that they are often critically deficient in phosphorous, which can only be corrected by the application of phosphatic fertilizers. Tests made by the Bureau of Soil Conservation on various soils throughout the country show that approximately 85% of Philippine soils are now deficient in phosphorous, while 59% are deficient in potash, and 55% in nitrogen. Since phosphate is the cheapest and most widely known source of phosphorous in the world today, the establishment of this plant is highly desirable.

Several private parties have shown interest in this project. It is, therefore, expected that it will be undertaken by private enterprise.

3. Salt Production.—Salt has become a very essential raw material for the growing chemical industries. To supply the increasing demand for salt, it is necessary to establish modern large-scale production units.

Production of salt by the solar evaporation of sea water, using mechanized methods, is recommended. Presently, Tabacalera is constructing a salt refinery in Mindoro, which is designed to produce 50,000 metric tons of salt annually.

4. Light Chemicals.—This project will be established in conjunction with the manufacture of charcoal, coke, and briquetted semi-coke in which coal tar is a by-product. From the treatment of coal tar, light chemicals such as benzol, phenol, cresol, and allied products

can be obtained. In the manufacture of charcoal, methyl alcohol and formaldehyde can also be obtained as by-products.

C. *Pulp and Paper*

At present, there are five (5) paper mills in the country, which are producing fine paper and paper boards. One is owned and operated by Compania Cellulosa de Filipinas. Another belongs to the Philippine Paper Mills, another to the World-Wide Investment Corporation, and the two most recently established are the Manila Paper Mill and the Philippine Paper Manufacturing Company.

The proposed project for the private sector aims to produce cigarette paper and tissue paper. In addition, the manufacture of wallboard and paper products by private enterprise is also proposed.

D. *Textiles*

Considering that textiles constitute the largest single item of importation of the Philippines, requiring foreign exchange in the amount of no less than ₱180 million annually, it is proposed to follow a bold program to develop the local textile industry to the extent of making the country self-sufficient. The contemplated development includes the expansion of the cotton textile factories, rayon manufacture and the processing and treatment of rayon fiber for weaving into cloth with or without mixture with cotton, and the establishment of integrated ramie textile mills.

E. *Non-Metallic Minerals*

1. Cement. (Already discussed in another section of this report).

2 Ceramics.—The ceramic industry in the Philippines has on the whole remained in a primitive stage, dominated by small family-pottery establishments and some small brick factories. Up to the present, chinaware and other porcelain ware are imported from abroad. The manufacture of these articles has recently been initiated by the establishment of KERMAC Manufacturing Co. The manufacture of structural bricks, including roofing materials, is essential to meet the increasing local demand.

The prospective manufacturing projects on ceramics are the manufacture of glazed wares, especially electrical insulators which the power-development program will require in large quantities, improved pottery, vitrified clay, construction materials including pipes,

porcelain ware, refractory bricks, and construction bricks including roofing materials.

3. Glass—Glass in the form of construction materials, table ware and decorative items is also essential. The establishment of these glass factories is proposed for the private sector.

F. *Food Manufacturing*

1. Food processing.—One of the major items on our import list is food products. Of these, the principal articles are meat, dairy products, fish, grain, vegetables, fruits and juices, powdered cocoa and prepared coffee.

Large importations of the foregoing products are largely due to insufficiency of local production. Some, however, are not available locally.

A number of food-processing plants have been established recently. Some have been highly successful and their products have received favorable reception among consumers. Given adequate financial and technical assistance, it is expected that new mills will be established.

2. Cassava Flour.—This project includes the establishment of several cassava flour mills, mostly in Mindanao, where cassava can be produced in abundance. Each mill is designed to produce cassava flour, cassava starch, and cassava tailings.

3. Wheat Flour.—Importation of this commodity in the last three years averaged 199.8 million kilos, valued at ₱42.3 million.

Based on a milling recovery of 70 per cent, the grain equivalent of 199.8 million kilos of flour will be about 285 million kilos. If all the wheat imported comes in the form of whole grain and milled here, there will not only be a saving in foreign exchange but it will also provide employment opportunities.

4. Starch, dextrin, and glucose.—The proposed project constitutes a corn starch, dextrin, and glucose manufacturing plant. The starch manufacturing plant will also supply the raw materials for the production of dextrin and glucose.

5. Animal Feed.—Feeds constitute at least 60 per cent of the total expenses in animal production. To insure the success of better animal production in the country, it is highly advisable that local animal feed-manufacturing plants be expanded to supply the needs. By-products from wheat-flour mills, establishment of which

is recommended above, will be another effective source of animal feeds.

G. *Leather and Leather Products*

These projects embrace the establishment of eight (8) modern tanneries with an aggregate annual production of 15 million square feet of leather. These tanneries are expected to be undertaken by private capital. The capacity of existing tanneries has been estimated at 5 million square feet, which is about 50 per cent of the local requirements. However, as the standard of living rises in response to economic development, the consumption of leather products especially shoes will increase.

H. *Home Industries*

The development of home industries is considered an important component of this production program, especially for the development of the rural economy. Home industries provide the farmer and his family with cash-producing employment during off-season periods when they are not busy with farm work.

A more vigorous and effective approach to the problem of home industries development appears necessary. The government should continue to take an active part in home industries development, especially in promotional work, involving the training of skills and improvement of designs, research, the development and standardization of products, extension of financial assistance, marketing, and organization of cooperatives. For this purpose, it is recommended that an outlay of ₱1.5 million should be made available to start a more vigorous campaign for the revival of interest in home industries development.

TABLE 1. — *PUBLIC INVESTMENT SCHEDULE FOR SELECTED MANUFACTURING INDUSTRIES*
(In Million Pesos)

PROJECT CATEGORY & PROJECTS	CAPACITY	*Total Financial Requirement Authorization by Project*			*Release of Fund for Implementation by Year*								
					First Year			*Second Year*			*Third Year*		
		Total	Dollar	Peso	Total	Dollar	Peso	Total	Dollar	Peso	Total	Dollar	Peso
T O T A L		300.2	187.3	112.9	111.5	75.6	35.9	55.5	31.6	23.9	133.2	80.1	53.1
I. *Iron and Steel and Drydock*:		78.8	37.3	41.5	36.1	20.1	16.0	18.9	8.2	10.7	23.8	14.8	9.0
1. Integrated Pig Iron Smelting and Steel Mill	159,000 MT	58.8	29.0	29.8	27.6	16.3	11.3	13.2	6.0	7.2	18.0	11.3	6.7
2. Dock and Ship Building		20.0	8.3	11.7	8.5	3.8	4.7	5.7	2.2	3.5	5.8	3.5	2.3
II. *Chemical Industries*:		59.6	42.3	17.3	28.8	21.9	6.9	8.6	5.3	3.3	22.2	15.1	7.1
3. Ammonium Sulfate #2	50,000 MT	15.0	10.4	4.6	13.2	10.4	2.8	1.8	—	1.8	—	—	—
4. Potassic Fertilizer	30,000 MT	10.1	8.0	2.1	1.1	0.9	0.2	0.3	0.2	0.1	8.7	6.9	1.8
5. Coal Derivatives		17.5	10.6	6.9	3.9	2.3	1.6	0.2	0.1	0.1	13.4	8.2	5.2
6. Ammonium Nitrate	30,000 MT	16.0	12.7	3.3	10.0	7.9	2.1	6.0	4.8	1.2			
7. Insecticide		1.0	0.6	0.4	0.6	0.4	0.2	0.3	0.2	0.1	0.1	—	0.1
III. *F u e l* :		10.0	7.4	2.6	8.6	7.4	1.2	1.4	—	1.4	—	—	—
8. Coke-Oven	85,000 MT	10.0	7.4	2.6	8.6	7.4	1.2	1.4	—	1.4	—	—	—
IV. *Pulp and Paper*:		14.0	9.5	4.5	10.0	7.0	3.0	3.3	2.4	0.9	0.7	0.1	0.6
9. Fine Paper	24,000 MT	14.0	9.5	4.5	10.0	7.0	3.0	3.3	2.4	0.9	0.7	0.1	0.6
V. *T e x t i l e* :		26.2	16.0	10.2	7.4	6.4	1.0	4.0	2.2	1.8	14.8	7.4	7.4
10. Ramie Textile	10.6 M yds.	26.2	16.0	10.2	7.4	6.4	1.0	4.0	2.2	1.8	14.8	7.4	7.4
VI. *M i n i n g* :		37.8	16.8	21.0	4.5	2.0	2.5	3.3	0.3	3.0	30.0	14.5	15.5
11. Malangas Coal & Others		37.8	16.8	21.0	4.5	2.0	2.5	3.3	0.3	3.0	30.0	14.5	15.5
VII. *Other Industries*:		57.0	49.5	7.5	9.0	8.0	1.0	11.0	10.5	0.5	37.0	31.0	6.0
12. Machine Tools		18.0	16.1	1.9	2.3	2.3	—	2.3	2.3	—	13.4	11.5	1.9
13. Industrial Machinery Parts		20.0	17.8	2.2	2.5	2.5	—	2.6	2.6	—	14.9	12.7	2.2
14. Ball and Roller Bearing Plants		9.0	7.6	1.4	1.2	1.2	—	1.1	1.1	—	6.7	5.3	1.4
15. Tin Plate and Can Plant													

VIII. *Home Industries (Promotional)*	2.0	0.5	1.5	1.0	0.4	0.6	0.6	0.1	0.5	0.4	—	0.4
IX. *Improvement and Expansion of Industrial Research*	14.8	8.0	6.8	6.1	2.4	3.7	4.4	2.6	1.8	4.3	3.0	1.3

IX. *Improvement and ...*
pansion of Indus-

TABLE 2 — *PROPOSED FIELDS FOR PRIVATE INVESTMENT*

Project Category and Projects	*Capacity*
I. *Iron and Steel & Drydock*:	
1. Dock & Ship Building	
2. Surigao Iron Ore	15,000 MT.
3. Ferro-Alloys	50,000 "
4. Galvanized Iron	60,000 "
II. *Chemicals*:	
5. Soda-Ash Caustic Soda	14,000 "
6. Superphosphate	50,000 "
7. Salt	70,000 "
8. Light Chemicals	— "
9. Pigment and Varnish	4,000 "
10. Resins	— "
11. Pharmaceuticals	— "
12. Glue	— "
13. Calcium Carbide	7,000 "
III. *F u e l* :	
14. Charcoal	240,000 "
15. Coalite Briquette	120,000 "
16. Alcohol Refineries	90 m lit.
IV. *Textile*:	
17. Cotton Cloth	190 m yards
18. Rayon Staple, cloth and filament	33 m yards
V. *Non-Metallic Minerals*:	
19. Cement	8 m bags
20. Ceramics	
21. Glass	
VI. *Non-Ferrous*:	
22. Copper Smelting and Refining	12,000 MT.
23. Copper Rolling, Wire Drawing and Insulating and Alloys	6,500 "
24. Alluminum Rolling	3,000 "
VII. *Machinery*:	
25. Industrial Machinery Parts	
26. Machine Tools	
27. Simple Electrical Equipment	

Project Category and Projects	*Capacity*
28. Screws, Hinges & Butts	
29. Agricultural Implements and Tools	
VIII. *Pulp and Paper*:	
30. Wallboard	60,000 MT.
31. Paper Products	3,000 "
32. Cigarette Paper and Tissue Paper	3,000 "
IX. *Food Manufacturing*:	
33. Food Processing	
34. Cassava Flour	1.5 m bags
35. Wheat Flour	1.5 m bags
36. Starch, Dextrine and Glucose	
37. Animal Feed	
X. *Leather*:	
38. Leather Tanning	15 m ft.^{2}
39. Leather Manufacturing	
XI. *Other Industries*:	
40. Cottage Industries	
41. Plywood	435 m ft.^{2}
42. Veneer	435 m ft.^{2}
43. Tin Plate and Tin Can Manufacturing	
44. Miscellaneous Industries	
XII. *Expansion of Existing Industries*	

CHAPTER IV —MINING

Objectives and Measures. In the proper pursuit of economic development on a national scale, the government has to undertake as proposed in the preceding chapter the financing of some of the basic industries which will provide a steady supply of partly processed or semi-processed materials for other manufacturing industries. These basic manufacturing industries will in turn need raw materials from our mines as well as from our agricultural industries. This will necessarily mean an expansion of activities in the mining of base metals and non-metallic minerals to be undertaken by the private sector. The expected accelerated rate of mineral production as shown in Table II is, therefore, intended to cover the raw material requirements of industrial development. There is a need to develop the country's base metal resources, centered on copper, iron, chromite, manganese and nickel, which are in demand also abroad.

With the existing copper-beneficiation plant and the proposed establishment of a copper smelting plant by private enterprise, copper mining will have to be accelerated. The proposed establishment of NASSCO's integrated iron and steel mills, with an estimated investment of ₱50 million, will undoubtedly stimulate the development of iron, chromite, manganese, coal and lime-mining industries in the various regions of the country. Following this trend, by-products from coke and charcoal manufacture will also induce the development of chemical industries based on them. Firebrick and refractory article production, essential in smelting plants, will have to follow suit.

The proposed utilization of the Surigao ore for the production of ferronickel pig, as proposed in the manufacturing program, will also require the mining of the lateritic deposit in the Surigao mineral reservation, which is conservatively estimated to contain 38 million dry tons with 1.39 per cent (average) nickel content. It is proposed that the deposit be developed by private enterprise under operating contracts with the government. The project will be a multi-million dollar venture.

In this connection, it is expected that mineral production will be increased yearly, provided that present favorable conditions of market, prices, labor and taxes remain unchanged.

The development of our mineral resources plays a vital role in providing the industrial program with the necessary raw materials. This is a condition precedent to industrialization.

In view of the fact that mining development is slated for private sector development, the government should limit direct investment in mining to coal development. However, the government should extend financial assistance to the private sector in mining development or in specific cases participate with private industry in financing some selected mining ventures.

TABLE II
ESTIMATED PRODUCTION GOALS
(*In Thousands*)

MINERAL	*Unit*	1st *Year*	2nd *Year*	3rd *Year*
1. Gold	Oz	470	490	500
2. Silver	Oz	600	650	700
3. Copper	MT	50	60	70
4. Manganese	MT	14	16	18
5. Chromite				
a. Refractory	MT	650	700	730
b. Metallurgical	MT	170	180	200
6. Iron	MT	2,000	2,100	2,400
7. Lead	MT	2.5	2.6	3.6
8. Zinc	MT	0.4	0.6	1
9. Surigao Ore (Including *Beneficiation)	MT	——	——	2
10. Quicksilver	Lb	130	140	145
11. Coal	MT	138	300	500
12. Lime	MT	1,000	2,000	3,000
13. Rock Asphalt	MT	4.5	8	12
14. Sand, Gravel and other Non-metallic				

CHAPTER V—SHIPPING, AIRPORTS AND AIRWAYS, POWER AND BARRIO ROADS

Supporting the agricultural, manufacturing and mining programs indicated in the previous chapters are selected projects in transportation, power and public works.

Power development is a vital precedent to industrial development and, simultaneously, a necessity if mechanized cottage industries development is to be promoted and developed in rural areas. Similarly, the more intensified shipping and airports and airways program is included in view of the urgent need for these facilities as there is an acute shortage of bottoms and air transport both from the domestic and overseas standpoint. Presently, less than 2 per cent of our foreign trade is carried by Philippine flag vessels. Shipping aids commodity distribution especially in this country where geographical conditions play an important role. In order to remedy the problem of marketing, more barrio roads will be needed to facilitate the shipment of commodities from production areas to market or distribution centers.

This three-year program, therefore, includes the following projects:

Project	*Three-Year Financial Requirement (In Millions)*
1. Shipping	₱ 100
2. Power	208
3. Barrio Roads	30
4. Airports and Airways	25
	₱ 363

This program thus calls for ₱363 million to finance the implementation of the program components within a three-year period.

The power program provides for the completion of Ambuklao, Binga, Maria Cristina Units No. 2 and 3, and all other hydro plants presently under construction; the construction of 2 large hydro plants, 10 small hydro plants scattered throughout the country, several thermal plants in areas where hydro sites are not available, and

transmission line extensions to new areas. About 270,000 KW of additional power capacity and 1,500 million KWH additional energy annually should be available.

The airports and airways improvement and expansion program is intended to stimulate the development of commercial aviation in this country in view primarily of geographical conditions. To help support the financing of this program, landing fees being charged airline companies, without exception,[1] should accrue to an airport and airways fund together with a certain portion of income derived from the gasoline tax by slapping an increase of one centavo.

The barrio road program contemplates improvement of about 715 kms. of road annually or a total of 2,145 kms. within the three-year period in order to facilitate and improve inland trade in the rural areas. This is in line with the Administration's rural development program.

The shipping program seeks an addition of 105,000 gross tons of domestic and ocean-going vessels to our merchant fleet. This will mean 30,000 GT for coastwise shipping and 75,000 GT for overseas shipping. Financing is indicated for government.

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[1] PAL is exempted from the payment of landing fees.

CHAPTER VI—SOCIAL DEVELOPMENT PROGRAM

There can be no definite distinction between economic and social development. What is conceived as an economic policy has "welfare" objectives, the raising of standards of living. Where available resources are limited, emphasis must be laid on social programs with the economic objective of increasing productivity. The trend, therefore, is more and more towards the search for social and economic measures which mutually support each other to lay a stable economic foundation for broadening welfare.

This program for social development, therefore, is designed to be in direct support of the production programs. The choice of the measures to be undertaken considers that high productivity, be it industrial or agricultural, depends upon a healthy, well-fed and well-housed people. It takes cognizance of the fact that increased productivity can only be possible with a skilled, trained and literate labor force possessed of high morale and understanding. One vital part of this program is the establishment of a social order that permits mobility and change and encourages the habits of thrift and work.

HEALTH

Economic development is an interplay of two primary forces—natural resources and manpower. Since the burden of development is necessarily borne by manpower, a high level of physical, mental and social efficiency should be kept.

Apart from humanitarian considerations, there is a direct economic aspect in health. Particularly in debilitating diseases where people do not die quickly but continue to eat income and reduce productivity, ill health represents a loss of both per capita and national net income. It is imperative that adequate protection against such diseases as malaria, tuberculosis, schistosomiasis, malnutrition, dysenteries and typhoid fever be provided. Sanitation measures must be undertaken in new areas of development and as the population increases, the extension of medical services and a health education program must be accomplished. Continued advancement in medical science must be stimulated.

In communities which are more settled and progressive, gradual and increasing participation of private initiative in the health program is desirable. Incentives for private investment in health should be provided as well as for private practice of the health profession in rural areas.

The health measures proposed to be implemented are:

(a) Control of Communicable Diseases:
1. Malaria Eradication.
2. Schistosomiasis Control. The result of the Pilot Project in Leyte must be applied to infected areas.
3. Expansion of Tuberculosis Control to include resettlement projects and the establishment of chest clinics in rural areas.

(b) Environmental Hygiene:
1. Construction of sanitary wells and other water supply sources.
2. Greater emphasis on environmental sanitation activities affecting food, water supply, sewage disposal and sewerage, town and country planning, refuse collection and disposal, sanitation of public conveyances, places of entertainment and industrial establishments.

(c) Medical and Hospital Care:
1. Establishment of additional public hospitals, sanitaria and health centers.
2. Establishment of additional rural health units including dental care to provide one team for every 20,000 people.
3. Medical research
4. Additional vaccine laboratory

(d) Improved Nutrition:
1. Research on nutrient requirement of people and nutrient content of Filipino foods.
2. Nutrition Education

(e) Training of Health Personnel:
1. Improvement of medical, nursing, and dental training facilities
2. Staff development program

(f) Health Statistics:
1. Survey of facilities
2. Standardization of health statistics

The health program should be coordinated in the Department of Health. Cooperative action should be given to other agencies of the government to insure development of new areas unhindered by communicable or infectious diseases, and assure healthy and sanitary surroundings for people to undertake the development work.

The efficiency with which the implementation is to be carried out in the various aspects of the health program should be supported by continuous training and education of public health personnel under the training program of the Department and in training abroad or in professional colleges of public health in the Philippines. Researches will be designed and developed to assist in the solution of current problems in the field and the production of immunizing vaccines and sera should be upgraded to meet the overall requirements.

SPECIFIC PROJECTS

A. *Control of Communicable Diseases*

1. *Malaria* — There are now 30 control units in operation and spread in malarious areas to survey endemic areas, to continue residual spraying with insecticides, DDT and Dieldrin of all houses in the field of operation and to do case treatment. The goal is to reduce or eliminate the transmission rate which is now 1.8% and to eradicate malaria within the next 2 or 3 years by massive continuous control methods. Research in different control methods should be continued and training of more technical men done to supply the field adequately. The 30 units should be gradually reduced after 1958 until only 10 will remain to actively engage in mopping up work and in surveillance to prevent recurrence of endemicity of malaria in all areas.

2. *Schistosomiasis* — It is expected that proper and effective control methods can be discovered in the experimental researches being undertaken in the pilot project in San Jose, Leyte. This project should be continued. Likewise, studies for better knowledge of the origin, transmission and control of the disease need to be made.

Control experiments like draining and clearing of streams, filling, ponding, flooding, improved farming, biological controls, etc., should be performed to find out efficient control methods.

In 2 or 3 years an appraisal and evaluation of the project should be made out of which may be derived the best method for application in a national control program.

3. *Tuberculosis* — The goal is to establish and activate mobile chest clinics until there is one clinic for every 200,000 people to visit towns and municipalities for case findings, consultations, and medical treatment and undertake tuberculin testing and BCG immunization of susceptible population; also the establishment of one static chest clinic in every province to do routinary clinic activities, receive referrals and cases requiring special treatment.

Tuberculosis Wards should form part of rural hospitals to take care of cases eligible for surgical treatment.

Public health nurses should extend services as may be needed in the patients' homes.

A village resettlement project should be established as a pilot project to take in tuberculosis cases that are recovered or on the way to recovery. They should be provided proper accommodation and trained in handicraft, gardening, and farming and other trades that may help them earn a living upon discharge.

Health education should be carried on as a major activity of each center or clinic. Likewise, training facilities should be provided technical personnel to enable them to give efficient service.

The cooperation of the Philippine Tuberculosis Society should be maintained and secured in all these activities.

B. *Environmental Hygiene and Sanitation*

1. *Water Supply* — To provide one source of safe water supply for every 250 population, there is need to construct 60,000 wells. This goal may not be reached in three years but as a part of the community development program, the Liberty Wells program and other "self-help" programs, it should be possible to expect that 50% of the need should be met within that period.

2. *Environmental Sanitation* — Emphasis throughout the years of development should be given to food sanitation, sewerage, sewage treatment and disposal, town and country planning, refuse collection and disposal, sanitation of public conveyances, of public buildings and places of entertainment and of industrial establishments.

To properly execute a campaign of sanitary improvement, legislation should be made available on industrial wastes disposal, pollution of streams, abatement of nuisances, and enforcement of sanitary rules and regulations.

A pilot environmental sanitation project should be launched in two selected places with rural and urban characteristics. The experience gained in these projects should be applied in appropriate places.

The environmental sanitation program should be coordinated with agricultural and industrial expansion, community and settlement development and road and harbor construction.

C. *Hospital and Medical Care*

1. *Hospitals* — The rate of admission into hospitals has increased and in many cases the bed capacity is exceeded by 100%. A building construction program for the next three years is designed to meet only the estimated increase in population. Pending an adequate survey of hospitals, particularly in their present coordination with dispensaries and health centers, their staffing and accessibility by people, no extensive building construction is planned to be undertaken.

Expansion of hospitals and training services and the establishment of pilot guidance and mental health clinics in regional training centers should be gradually undertaken.

A regional hospital training center should be established to absorb consultant, technical and educational services which a medical center should offer to practicing physicians and hospital personnel. Coordination of this hospital center with hospital and medical services within the adjoining areas should be made and it should eventually be made the center of scientific medical and hospital services in the region.

Improvement in the staffing of each hospital is one of the primary objectives of the program.

Dental and maternity and infant care should be maintained and promoted in the hospitals, in maternity clinics and dispensaries with the cooperation of private organizations like the Women's Clubs.

2. *Philippine General Hospital* — The need for an additional operating pavilion is imperative. As a medical training institution, a surgical pavilion for operating purposes as well as for instruction, demonstration and training should be provided. This should be constructed during the first year of this program.

3. *Rural Health Units* — This activity implements both curative and preventive phases of public health. It will also render services to maternity, infant's and children's needs.

Two types of rural health units are contemplated in this program: the senior rural health units which will be provided with a physician, public health nurse, midwife, sanitary inspector and clerk-driver and the junior rural health units which will have a physician and a nurse or midwife.

It is expected to establish 1300 rural health units up to 1958 and 10 every year thereafter.

Municipalities with 5,000—35,000 population should have senior rural health units. Municipalities with more than 35,000 population should have in addition an extra nurse and/or midwife and/or sanitary inspector each for every 5000 additional population.

Rural Health Kits administered by these health units should be given to barrios and sitios which are not within easy reach of established units. These kits should be under the charge of barrio councils.

4. *Vaccine Laboratory* — To enable development of efficient vaccine and sera production, an additional building to house the smallpox vaccine laboratory should be constructed. Work should also be expedited on pertussis and tetanus toxoid work and on increased production of plasma and collection of whole blood in cooperation with the Philippine National Red Cross.

A construction program for the next three years of a toxoid and antitoxin laboratory; pathology and microbiology building; antibiotic plant; and residences for full time staff members should be undertaken.

It is hoped that the expansion herein programmed will give full support to the public health program of the Department of Health and eventually lead to the export of sera and vaccines to neighboring countries.

3. *Medical Research* — Research should be bolstered with qualified staff and materials. Experiments on achromycin and myesteclin and on Salmonella and Shigella enteritis should be continued. Researches on virus in general and on Hemorrhagic Fever in particular in connection with occurrence of diseases and their cure and in similar manner that of rabies should be pursued. Other medical research should be encouraged with the assistance of the government.

D. *Improved Nutrition* — Malnutrition and undernutrition are prevalent among adults as well as infants and children. Adequate nutri-

tion should be determined for both sexes and for different age groups of different activities. The food pattern of the different population levels should be determined by surveys, food analyses, blood analyses, and experiments on human requirements and animal studies.

Nutrition education and information should be intensified and applied to wider areas. A medical nutrition clinic should be established in at least each rural hospital.

Recipe and menu testing, dietary investigation, and evaluation should be undertaken to determine proper dietary suggestions for all types of the population.

Food analyses shall be performed particularly for proximate minerals and vitamins; amino acids, vitaminB_{12} and folic acid.

Likewise, blood analyses to determine normal levels of nutrients, particularly serum iron and phosphates should be made. Human requirements for riboflavin and protein should be determined.

Cooperative activities should be carried on with other government agencies, like the Army and Navy, hospitals, etc. to determine proper dietary measures to be applied to prevent mal- or undernourishment.

E. *Training of health personnel*

The prosecution of the health program or of any program depends upon the competence of the personnel available to carry it out. The training facilities of the medical, nursing, and dental colleges of the University of the Philippines should be improved and extended.

The training program available in the country should be supplemented with foreign technical assistance for both government health personnel and private practitioners.

Likewise, a vigorous staff development program for continuous professional growth of those already on the job should be fostered.

F. *Health Statistics*

A thorough survey of all medical facilities available in this country should be made to determine the actual ratio of facilities to population. This should be the basis for planning the expansion of the health program.

Health statistics should be standardized and up-to-date statistics on death rate, birth rate, disease incidence, morbidity, infant mortality, etc., should be arrived at for planning purposes.

SUMMARY OF INVESTMENT REQUIREMENTS OF THE HEALTH PROGRAM[1]
(In Thousand Pesos)

Projects	1957	1958	1959	TOTAL
a. Control of Communicable diseases				
1. Tuberculosis	800	800	800	2,400
2. Schistosomiasis		200	400	600
b. Environmental Sanitation				
1. Water supply	2,000	3,400	4,000	9,400
2. Sanitation	300	300	300	900
c. Hospitals, clinics, rural health units, laboratories	3,000	5,000	6,000	14,000
d. Nutrition	2,000	—	—	2,000
e. Training	300	300	500	1,100
f. Survey	100	—	—	100
TOTALS	8,500	10,000	12,000	30,500

[1] Includes construction of buildings, equipment, training only.

SOCIAL WELFARE

The security and progress of a country is largely determined by the opportunities available for its people to contribute their creative skills, capacities and abilities to the wealth of the nation. It is also a basic principle of democracy that the state must provide the opportunities to enable all its citizens, including the less fortunate and underprivileged, to make such a contribution. Thus the welfare of the masses becomes the prime concern and responsibility of the government.

Some facts on the present social welfare:

(1) Government social welfare received on the average 0.55% of the annual national budget from 1950-56 or ₱4.3 million; voluntary social welfare cost ₱3.4 million;

(2) Estimated per capita cost of social welfare in 1955 was ₱5.12. There are about 2 millions eligible for social welfare. Only 3/4 are being aided by both government and voluntary agencies on an almost half-half ratio.

(3) Of 400,000 physically incapacitated who can be re-trained for gainful occupation, only 800 are given rehabilitative services;

(4) 8 government and 13 voluntary child-caring institutions give shelter and care to an average of 4,000 children annually; and

(5) Government welfare programs favor assistance for economic needs; voluntary agencies lay emphasis on developmental and recreational aspects.

The many social ills and handicaps act as a great deterrent to the productive potential of individuals and increase the economic burden of family members who must support dependents. National productive capacity, wealth and income suffer. Continued economic dependency tends to further multiply social ills and handicaps. In the long run, it is less costly to provide timely handling of such social ills.

The awakening of civic consciousness and the use of self-reliance and self-help as a technique in social progress offers vast possibilities for human welfare. Voluntary effort must be encouraged and stimulated under dynamic government leadership. Fundamental social welfare services such as the social integration of the handicapped and the institution of preventive measures against dependency, incapacity, criminality, delinquency, other social maladjustments, and individual and social disintegration are immediate objectives. Comprehensive social welfare services will, for the present, in view of limited resources, remain a long range objective.

The measures to be implemented in social welfare are:

(a) Rehabilitation of the physically handicapped and their return to the labor force;
(b) Reconstruction of the child welfare program;
(c) Training of social welfare personnel;
(d) Self-help projects;
(e) Social research and statistics.

SPECIFIC PROJECTS

a. *Rehabilitation of the physically handicapped*

It is estimated that there are at least 400,000 physically handicapped in this country who, if given the opportunity, may be re-

habilitated and subsequently retrained for a suitable vocation. Thus, these 400,000 who are now social dependents can be returned to the labor force and become productive citizens. The vocational rehabilitation program of the Social Welfare Administration shall be expanded and 8 regional centers established.

b. *Reconstruction of the Child Welfare Program*

The emphasis in the Child Care Program of the Social Welfare Administration should be shifted from mere custodial care to training for citizenship. To achieve this, it is necessary that Welfareville be developed for the industrial training of its wards and an additional two or three children's or youth farms for training of wards in rural life should be established.

The educational program in children's institutions should be coordinated with the program of the Department of Education.

c. *Training of social welfare personnel.* Social welfare training in this country has been geared to western standards and needs. Because of the characteristics of our economy, it is necessary that a training program be developed which will give competence to welfare personnel along self-help, mass population programs and preventive and experimental projects rather than along relief and rehabilitation of individual cases.

Foreign technical assistance should be made available for senior personnel. Local training schools for junior personnel should be subsidized by government.

d. *Self-help projects*

Emphasis should be shifted from relief to self-help projects and the stimulation of people into awareness of their need and the application of their own resources to the solution of their problem. This calls for close coordination with community development programs.

e. *Social research and statistics*

Social research is very necessary as a tool in balancing the use of limited resources. The results of research are important as bases for the formulation of programs, for checking their progress and evaluating their effectiveness. Sample surveys and experimentation should be fostered.

SUMMARY OF FINANCIAL REQUIREMENTS
(In thousand pesos)

PROJECTS	1957	1958	1959	TOTAL
1. Training of Personnel	100	150	150	400
2. Rehabilitation of the Handicapped	500	800	1,200	2,500
3. Child Welfare (Farms, etc.) .	200	200	200	600
4. Self-Help Projects	700	800	1,400	2,900
5. Social research	50	50	50	150
TOTAL	1,550	2,000	3,000	6,550

EDUCATION

Economic self-sufficiency and stability can be achieved to a great extent through the processing of the extensive natural resources of the country into consumable goods by the application of labor and capital. It is, therefore, imperative that hand in hand with economic development should be the improvement of educational facilities by which manpower can become skilled and, therefore, productive citizens, properly imbued with a healthy nationalism and civic consciousness.

Education has impressive accomplishments. Of all services, it probably has the biggest impact on the development of the economic life of the country and the establishment of a sound democratic nation.

To achieve this, equal opportunity for all children and adults for basic education must be provided; as well as a differentiated system of education to provide for differences in individual ability and to meet the economic and professional needs of the country; advanced opportunities in education for those who desire it; high standard of achievement in all educational institutions; industrial and scientific research to develop natural resources and to train highly competent technicians and other executives and opportunities for citizen participation in educational activities.

To place school financing on a more stable and productive basis calls for the introduction of a system of local taxation and the gradual delegation to local governments of greater authority and responsibility for the management of their schools.

To implement the policy and achieve desired goals, the following program will be undertaken during the next three years:

1. Construction of a sufficient number of public elementary school buildings to assure the education of all children of elementary school age and the strict application of the Education Act;

2. Reorganization of the general secondary schools towards the comprehensive high school which will give greater opportunity for vocational options, including cottage industries and the establishment of additional vocational schools;

3. Development of industrial and scientific research on Philippine natural resources as part of higher education, and the creation of a Board of Universities to ensure proper standards in all colleges and universities;

4. A Division of Fundamental and Adult Education, created to be responsible for harnessing all educative forces to eradicate illiteracy among out-of-school youth and adults, and for extending the Adult Education program to include vocational (including cottage industries) social, and civic activities;

5. Establishment of a Division of Teacher Training in the Department of Education to be responsible for the adequate training of general and vocational teachers;

6. Review of the curriculum and the textbooks of all educational institutions to instill in students the best national traditions, to train them for the development of the country's resources, and to develop the special abilities of each child;

7. Local taxation of 3/8 of one per cent on assessed valuation of real property as well as the passage of permissive legislation to grant powers to local authorities to levy additional local taxes, and a planned and progressive scheme of decentralization of control through the establishment of local Boards;

8. Improvement of the administrative structure so that the Secretary of Education, the Director of Education and Superintendents may be freed from routine administrative duties to give greater weight to educational leadership;

9. Determination and the enforcement by the Department of Education of the subjects, time allocation and standards of achievement of private and alien schools.

SPECIFIC PROJECTS

a. *Basic and fundamental education.* This calls for the construction of additional elementary school buildings to provide basic education

for school age children in 2,000 barrios without schools and to take care of the natural increase in population.

This project also considers facilities for the adult to become literate and/or to gain skills for earning a living through an adult education program.

The construction of school buildings as well as literacy, vocational and cultural activities for the adult should be implemented through the self-help method in the first and the extension and the community development programs for the latter.

b. *Vocational education.* The general high schools should be gradually converted into the comprehensive type of schools which will provide general vocational training to the youth. The program calls also for the establishment of additional vocational agricultural and trade schools to bring the present number to a total of 90.

c. *Curriculum.* The reconstruction of the school curriculum to include more vocational courses in accordance with the needs of the country. The resources of each locality and the potentialities for employment should be considered in the choice of offerings in school.

d. *Administration.* The Department of Education should be reorganized to achieve coordination and greater economy in the use of staff and facilities. Likewise, a more stable financing system should be worked out for secondary education through taxation. It is also necessary that localities be encouraged and trained to take more and more responsibility in the administration of the schools to prepare for a decentralized system of school administration.

SUMMARY OF FINANCIAL REQUIREMENTS
(In thousand Pesos)

Project	1957	1958	1959	TOTAL
1. Basic education[1]	2,000	2,000	1,000	5,000
2. Vocational Education				
(a) Conversion of general to comprehensive schools[2]	2,000	2,000	3,000	7,000
(b) Vocational Schools[3]	2,000	3,000	1,000	6,000
Total	6,000	7,000	5,000	18,000

[1] For 1,000 elementary school buildings.
[2] For conversion of 140 general high schools into the comprehensive type.
[3] For the establishment of 20 vocational schools.

SOCIAL DEVELOPMENT PROGRAM

The Social Development Program thus requires the following investment in buildings, equipment and training of personnel during the three-year program period:

Project	Investment In thousand pesos			
	1957	1958	1959	Total
1. Health	8,500	10,000	12,000	30,500
2. Welfare	1,550	2,000	3,000	6,550
3. Education	6,000	7,000	5,000	18,000
Totals	16,050	19,000	20,000	55,050